

**Notice of Allowability**

Application No.

10/727,176

Examiner

Cam Y T. Truong

Applicant(s)

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 7/11/2007.
2. ☒ The allowed claim(s) is/are 1-2, 6, 10-12, 14-20, 23, 27-29, 31-36.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date See Continuation Sheet
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

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Primary Examiner  
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Continuation of Attachment(s) 3. Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date: 6/28/04, 10/29/04, 12/2/04, 7/3/06, 4/5/07.

### **DETAILED ACTION**

1. Applicant has amended claims 1-2, 4-37 and canceled claims 2, 38-39 and added claims 40-41 on 7/11/2007.

Claims 1-2, 4-37 and 40-41 are pending in this Office Action.

### **EXAMINER'S AMENDMENT**

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with 13/9/2007 on Attorney Christopher L. Holt, Reg. No. 45,844.

**In claims:** Please cancel claims 4-5, 7-9, 13, 21-22, 24-26, 30, 37, 40-41.

1. (Currently amended) A data processing system including a processor, the system comprising:

- a standardized data representation that is encoded on a computer-readable storage medium and that represents an object-relational data model;

- a model generator that processes the standardized data representation and automatically derives, based on descriptions of objects and an indication of a collection of object-relational mappings in the standardized data representation to generate a dimensional model that corresponds to the object-relational data model, the standardized data representation includes:

  - a description of the objects and object relationships reflected in the object-relational data model;

  - a description of persistent data store mappings associated with the object-relational data model;

  - the indication of a collection of object-relational mappings that specify how a data member associated with a class in the object-relational data model can be filled with data retrieved from at least one table in a relational database;

  - a description of at least one user-designated focal point that represents a point of analysis indicated in association with data in the object-relational data model; and

  - a description of at least one data element selected from a group consisting of a class from the object-relational data model, a data member associated with a class from the object-relational data model, a collection of object-relational mappings that specify how data is retrieved from a relational database, a field that uniquely identifies a class

from the object-relational data model, an association relationship indicator that identifies a relationship among classes in the object-relational data model, a composition relationship indicator that identifies a relationship among classes in the object-relational data model, and a measure that identifies an interesting numerical value used for generation of the dimensional model.

10. A data processing system including a processor, the system comprising:
  - a tagged format data schema that is encoded on a computer-readable storage medium and that represents an object-relational data model;
  - a model generator that processes the tagged format data schema and automatically derives, based on descriptions of objects and an indication of a collection of object-relational mappings in the tagged format data schema to generate a dimensional model that corresponds to the object-relational data model,
- the tagged format data schema includes:
  - a description of objects and object relationships reflected in the object-relational data model;
  - a description of persistent data store mappings associated with the object-relational data model;
  - the indication of a collection of object-relational mappings that specify how a data member associated with a class in the object-relational data model can be filled with data retrieved from at least one table in a relational database;

a description of at least one user-designated focal point that represents a point of analysis indicated in association with data in the object-relational data model; and

a description of at least one data element selected from a group consisting of a class from the object-relational data model, a data member associated with a class from the object-relational data model, a collection of object-relational mappings that specify how data is retrieved from a relational database, a field that uniquely identifies a class from the object-relational data model, an association relationship indicator that identifies a relationship among classes in the object-relational data model, a composition relationship indicator that identifies a relationship among classes in the object-relational data model, and a measure that identifies an interesting numerical value used for generation of the dimensional model.

27. A data processing system including a processor, the system comprising:

a Extensible Markup Language (XML) data schema that is encoded on a computer-readable storage medium and that represents an object-relational data model;

a model generator that processes the data schema and automatically derives, based on descriptions of objects and an indication of a collection of object-relational mappings in the data schema to generate a dimensional model that corresponds to the object-relational data model,

the data schema includes:

a description of objects and object relationships reflected in the object-relational data model;

a description of persistent data store mappings associated with the object-relational data model;

a description of at least one user-designated focal point that represents a point of analysis indicated in association with data in the object-relational data model;

the indication of a collection of object-relational mappings that specify how a data member associated with a class in the object-relational data model can be filled with data retrieved from at least one table in a relational database; and

a description of at least one data element selected from a group consisting of a class from the object-relational data model, a data member associated with a class from the object-relational data model, a collection of object-relational mappings that specify how data is retrieved from a relational database, a field that uniquely identifies a class from the object-relational data model, an association relationship indicator that identifies a relationship among classes in the object-relational data model, a composition relationship indicator that identifies a relationship among classes in the object-relational data model, and a measure that identifies an interesting numerical value used for generation of the dimensional model.

***Allowable Subject Matter***

4. Claims 1-2, 6, 10-12, 14-20, 23, 27-29, 31-36 are allowed.

The prior art of record, alone or in combination, does not teach or fairly suggest the combination of steps as recited in independent claim 1, wherein "processes the standardized data representation and automatically derives based on descriptions of objects and the indication of a collection of object-relational mappings in the standardized representation to generate a dimensional model that corresponds to the object-relational data model, the standardized data representation includes: a description of the objects and object relationships reflected in the object-relational data model; a description of persistent data store mappings associated with the object-relational data model; the indication of a collection of object-relational mappings that specify how a data member associated with a class in the object-relational data model can be filled with data retrieved from at least one table in a relational database; a description of at least one user-designated focal point that represents a point of analysis indicated in association with data in the object-relational model; and a description of at least one data element selected from a group consisting of a class from the object-relational data model ; a data member associated with a class from the object-relational data model, a collection of object-relational mappings that specify how data is retrieved from a relational database, a field that uniquely identifies a class from the object-relational data model, an association relationship indicator that identifies a relationship among classes in the object-relational data model, a composition relationship indicator that identifies a relationship among classes in the object-relational data model, and a



measure that identifies an interesting numerical value used for generation of the dimensional model”;

The prior art of record, alone or in combination, does not teach or fairly suggest the combination of steps as recited in independent claim 10, wherein “processes the tagged format data schema and automatically derives, based on descriptions of objects and an indication of a collection of object-relational mappings in the tagged format data schema to generate a dimensional model that corresponds to the object-relational data model, the tagged format data schema includes: a description of objects and object relationships reflected in the object-relational data model; a description of persistent data store mappings associated with the object-relational data model; the indication of a collection of object-relational mappings that specify how a data member associated with a class in the object-relational data model can be filled with data retrieved from at least one table in a relational database; a description of at least one user-designated focal point that represents a point of analysis indicated in association with data in the object-relational model; and a description of at least one data element selected from a group consisting of a class from the object-relational data model; a data member associated with a class from the object-relational data model, a collection of object-relational mappings that specify how data is retrieved from a relational database, a field that uniquely identifies a class from the object-relational data model, an association relationship indicator that identifies a relationship among classes in the object-relational data model, a composition relationship indicator that identifies a relationship among

classes in the object-relational data model, and a measure that identifies an interesting numerical value used for generation of the dimensional model”; and

The prior art of record, alone or in combination, does not teach or fairly suggest the combination of steps as recited in independent claim 27, wherein “processes the data schema and automatically derives, based on descriptions of objects and an indication of a collection of object-relational mappings in the data schema to generate a dimensional model that corresponds to the object-relational data model, the data schema includes: a description of objects and object relationships reflected in the object-relational data model; a description of persistent data store mappings associated with the object-relational data model; a description of at least one user-designated focal point that represents a point of analysis indicated in association with data in the object-relational data model; the indication of a collection of object-relational mappings that specify how a data member associated with a class in the object-relational data model can be filled with data retrieved from at least one table in a relational database; and a description of at least one data element selected from a group consisting of a class from the object-relational data model, a data member associated with a class from the object-relational data model, a collection of object-relational mappings that specify how data is retrieved from a relational database, a field that uniquely identifies a class from the object-relational data model, an association relationship indicator that identifies a relationship among classes in the object-relational data model, a composition relationship indicator that identifies a relationship among classes in the object-relational

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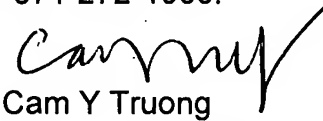
data model, and a measure that identifies an interesting numerical value used for generation of the dimensional model".

**Contact Information**

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cam Y T. Truong whose telephone number is (571) 272-4042. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
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9/14/2007